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## **Investigating the Relationship Between Drone Warfare and Civilian Casualties in Gaza**

### **Abstract**

Unmanned aerial vehicles (UAVs), better known as drones, are increasingly touted as 'humanitarian' weapons that contribute positively to fighting just wars and saving innocent lives. At the same time, civilian casualties have become the most visible and criticized aspect of drone warfare. It is argued here that drones contribute to civilian casualties not in spite of, but because of, their unique attributes. They greatly extend war across time and space, pulling more potential threats and targets into play over long periods, and because they are low-risk and highly accurate, they are more likely to be used. The assumption that drones save lives obscures a new turn in strategic thinking that sees states such as Israel and the US rely on large numbers of small, highly discriminating attacks applied over time to achieve their objectives. This examination of Israel's 2014 war in Gaza argues that civilian casualties are not an unexpected or unintended consequence of drone warfare, but an entirely predictable outcome.

## Introduction

For militaries, unmanned aerial vehicles (UAVs) offer three clear benefits over manned systems: Access, persistence, and accuracy. Because there is no operator on board the UAV itself, it can enter areas where manned missions would be considered too dangerous (access); because crews on the ground can be rotated, the UAV can stay in theatre longer, thus increasing endurance (persistence); and consequently, opportunities for better intelligence gathering and analysis are enhanced, which should make for better targeting (accuracy). It is widely assumed that this combination of access-persistence-accuracy will not only save lives on the side deploying them, but also reduce collateral damage. Because these weapons seem to reduce risk to human life in useful ways, drones have become an increasingly attractive option for policy-makers and military commanders alike.

Civilian casualty figures are routinely used to justify or discredit any given military action, and drones have become a part of this discourse. Pointing to their unique attributes of access-persistence-accuracy, advocates tout UAVs as a more 'humanitarian' military technology that contributes positively to fighting just wars and saving innocent lives. At the same time, civilian casualties have become the most visible and criticized aspect of drone warfare, and so the relationship between the two deserves careful consideration. It is argued here that drones contribute to civilian casualties not in spite of, but because of, their attributes of access-persistence-accuracy. Drones greatly extend war across time and space, pulling more potential threats and targets into play over long periods, and because they are low-risk and highly accurate, they are more likely to be used. The assumption that drones save lives obscures a new turn in strategic thinking that sees states such as Israel and the United States rely on large numbers of small, highly discriminating attacks applied over time to achieve their objectives. Drones are fast becoming the *ne plus ultra* weapon for this kind of military action.

The United States uses drone warfare in counter-terrorism operations in Pakistan, Yemen and Somalia, with significant loss of civilian life and amid much controversy. In Pakistan, for example, some 416 to 957 civilians were killed in 401 U.S. drone strikes between 2004 and October 31 2014.<sup>1</sup> President Barack Obama countered criticism of his drone warfare policy in a 2013 speech at the

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<sup>1</sup>Jack Serle and Abigail Fielding-Smith, "October 2014 Update: US covert actions in Pakistan, Yemen and Somalia," *Bureau of Investigative Journalism*, November 3, 2014, available at: <http://www.thebureauinvestigates.com/2014/11/03/october-2014-update-us-covert-actions-in-pakistan-yemen-and-somalia/>; Obama has authorized more than 431 targeted killings against suspected militants and terrorists, which have killed over 3,300 people; Micah Zenko, "Barack Obama and the 'Wimp Factor'," *Foreign Policy*, September 10, 2014, available at: [http://www.foreignpolicy.com/articles/2014/09/10/barack\\_obama\\_and\\_the\\_wimp\\_factor\\_toughness\\_syria\\_putin](http://www.foreignpolicy.com/articles/2014/09/10/barack_obama_and_the_wimp_factor_toughness_syria_putin).

National Defence University, suggesting that it was in fact a more humanitarian option than other military alternatives: “Conventional airpower or missiles are far less precise than drones, and are likely to cause more civilian casualties and more local outrage,” he said.<sup>2</sup>

Drone warfare was also featured prominently in Operation Protective Edge, an Israeli military action that took place between July 8 and August 26, 2014 in the Gaza strip. Again, the extent of civilian casualties drew heavy international criticism. During the operation, which was ostensibly aimed at stopping Hamas from firing rockets at Israel, over 2100 Palestinians were killed. By Israel’s own admission, some 53 percent of them were civilian; the UN puts the number near 70 percent.<sup>3</sup> Much has been made of the efforts Israel made to avoid such civilian casualties: the Israeli Foreign Ministry stressed it had used “the most sophisticated weapons available today in order to pinpoint and target only legitimate military objectives and minimize collateral damage to civilians.”<sup>4</sup> The Israel Defense Forces (IDF) emphasised the important role drones played in helping it minimize civilian deaths.<sup>5</sup> The Israeli efforts were praised by the Chairman, Joint Chiefs of Staff (CJCS), General Martin Dempsey, who noted that, “Israel went to extraordinary lengths to limit collateral damage and civilian casualties” and said “the Pentagon had sent a ‘lessons-learned team’... to work with the IDF to see what could be learned from the Gaza operation,” including its efforts to limit civilian casualties.<sup>6</sup>

There is indeed much to be learned. An investigation of Operation Protective Edge as an example of the rapidly maturing art of drone warfare can help explain the apparently paradoxical problem of how reliance on drones may increase, rather than decrease, civilian casualties.

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<sup>2</sup> Barack Obama, “Remarks by the President at the National Defense University,” The White House, May 23, 2013, available at: <http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university>.

<sup>3</sup> Dan Williams, “Israel says has evidence 47 percent of Gaza dead were combatants,” *Reuters*, August 2, 2014, available at: <http://www.reuters.com/article/2014/08/02/us-mideast-gaza-casualties-idUSKBN0G20HF20140802>; “Gaza Crisis: Toll of Operations in Gaza,” *BBC News*, September 1, 2014, available at: <http://www.bbc.com/news/world-middle-east-28439404>.

<sup>4</sup> Israel Ministry of Foreign Affairs, “Behind the Headlines: Fighting Hamas Terrorism within the Law,” August 7, 2014, available at: <http://mfa.gov.il/MFA/ForeignPolicy/Issues/Pages/Fighting-Hamas-terrorism-within-the-law.aspx>.

<sup>5</sup> “Special Interview: How IDF UAVs Saved Lives in Gaza,” *Israeli Defense Forces blog*, August 31, 2014, available at: <http://www.idfblog.com/blog/2014/08/31/special-interview-how-idf-uavs-saved-lives-in-gaza/>.

<sup>6</sup> “Dempsey: Israel went to ‘extraordinary length’ to avoid civilian casualties in Gaza,” *Haaretz*, November 7, 2014, available at: <http://www.haaretz.com/news/diplomacy-defense/1.625194>.

## Drones, Civilian Casualties, and Just War Theory

In Just War Theory, the just conduct of a war (*jus in bello*) requires that civilian casualties are to be avoided—but not at all costs.<sup>7</sup> Civilian deaths are acceptable under certain conditions regarding proportionality, distinction, and necessity. The response must be proportionate to the threat; distinctions must be drawn between combatants and civilians; and any action taken must be defensible as militarily necessary. While just war conventions are famously difficult to qualify or quantify, and the international laws of war they inform often prove difficult to apply or administer, if it can be shown that these conditions are met, collateral damage can be justified.

It is clear that the access-persistence-accuracy nexus of drones significantly improves the ability to satisfy these conditions. Drones provide better situational awareness and more opportunities, thereby aiding tactical patience, plus their smaller payloads and more precise delivery minimize the risks of unintended casualties. These qualities are demonstrated by the use of drones to carry out targeted killings in which specific individuals are assassinated, often in difficult circumstances. With their abilities to pierce the fog of war, it would seem that drones are effective tools for upholding *jus in bello* conventions, but by looking beyond their more obvious capabilities, the wider implications of their use become apparent.

### *Lowering the Threshold for Military Action*

The first problem raised by drones is that they lower the threshold for using military force in the first place. Because they decrease risk for the deploying side, that side is more inclined to use them in situations that would have been deemed too risky in the past, or that would have been resolved through law enforcement. The U.S. use of drones in Pakistan since 2004 demonstrates this point well: the U.S. would not have sent 309 manned missions into Pakistan, a state it was never at war with, to neutralize targets – the political and diplomatic fall-out would have been deemed far too high in all but the most serious cases of military necessity, a point that Obama himself has acknowledged:

“It’s... not possible for America to simply deploy a team of Special Forces to capture every terrorist. Even when such an approach may be possible, there are places where it would pose profound risks to our troops and local civilians...times when putting U.S. boots on the ground may trigger a major international crisis.”<sup>8</sup>

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<sup>7</sup> For a discussion of how drones fit within the conventions of just war and international law, see Ann Rogers and John Hill, *Unmanned: drone warfare and global security* (London/Toronto: Pluto/Between the Lines, 2014), 103-113.

<sup>8</sup> Obama, “Remarks by the President...”

The decision to mount a manned mission to kill bin Laden was a rare exception, and the debate within the U.S. administration over the merits of a drone attack versus other options demonstrates why drones are so attractive.<sup>9</sup> Obama noted that, “our operation in Pakistan against Usama bin Ladin cannot be the norm. The risks in that case were immense.”<sup>10</sup> Drones mitigate that risk significantly, but in doing so, as Kreps and Zenko suggest, they also “create a particular moral hazard by keeping pilots away from danger. Because the costs of launching deadly strikes with drones are lower than with piloted aircraft, civilian officials are more willing to authorize them.”<sup>11</sup> The problem is, of course, that such attacks inevitably create opportunities for harming civilians.

### *The Disposability of Civilians*

Drones increase opportunity for military action, which in itself increases the likelihood of collateral damage, but it remains to be explained why high numbers of civilian casualties persist when avoiding collateral damage is supposedly hard-wired into modern militaries and when drones would seem to possess ideal capabilities for discrimination in targeting and precision attacks. Here, the work of Zygmunt Bauman is helpful. Exposing the underlying power biases that inform the current world order, Bauman argues that global inequality renders some segments of society “disposable,” in economic, political and also military terms—the so-called “collateral damage” of globalization. Gross inequalities in power produce “a selective affinity between social inequality and the likelihood of becoming a casualty.”<sup>12</sup>

Thus for Bauman, “thinking in terms of collateral damage tacitly assumes an *already existing inequality* of rights and chances, while accepting a priori the unequal distribution of the costs of the undertaking (or for that matter desisting

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<sup>9</sup> According to Bowden, three options were mooted: 1) An air assault on the compound was dismissed because the air force calculated 30 precision bombs would be needed, which could lead to significant casualties and could not guarantee success, 2) A single drone attack on Bin Laden himself was ruled out because if the assassination attempt failed, Bin Laden would vanish, 3) A manned helicopter raid was chosen because people on the ground could verify results, gather evidence and was comparatively low-risk. Zenko quotes retired Adm. William McRaven who said it, “was a standard raid and really not very sexy” and “We did 11 other raids much like that in Afghanistan that night”; Mark Bowden, “The hunt for Geronimo,” *Vanity Fair*, November 2012, available at: <http://www.vanityfair.com/politics/2012/11/inside-osama-bin-laden-assassination-plot>; Zenko, “Barack Obama and the 'Wimp Factor'.”

<sup>10</sup> Obama, “Remarks by the President...”

<sup>11</sup> Sarah Kreps and Micah Zenko, “The next drone wars: preparing for proliferation,” *Foreign Affairs*, March-April, 2014, available at: <http://www.foreignaffairs.com/articles/140746/sarah-kreps-and-micah-zenko/the-next-drone-wars>.

<sup>12</sup> Bauman, Zygmunt, *Collateral Damage: Social Inequalities in a Global Age* (Cambridge: Polity Press, 2011), 5.

from) action.” For militaries specifically, the decision to use force even when civilian lives are risked is “easier” and “more likely” because “the people who decided about the worthiness of taking the risk were not the ones who would suffer the consequences of taking it.”<sup>13</sup> Bauman’s argument signals an important departure from the more usual efforts to determine what is acceptable in terms of collateral damage because it posits a pre-existing imbalance that tilts the attacker in favor of undertaking the attack.

### *The Power of Distance*

There are also more abstract factors associated with drones that further intensify a tilt towards mounting an attack despite the potential risk to civilians. First, the very presence of a drone presupposes the existence of a threat: Anderson has investigated this more generally in terms of U.S. counter-insurgency doctrine that posits a “pre-insurgent” population that “is addressed as an unstable collective of actual and potential enemies and actual and potential friends,” from which “new categories of people outside of a civilian/combatant distinction emerge.”<sup>14</sup> Second, Kaplan suggests that the ability to survey a theatre of operations from a “godlike” aerial perspective such as that afforded by a UAV bestows a sense of power on the viewer: that power inheres in the aerial gaze itself and lends itself to the construction of a dehumanized “monster-enemy.”<sup>15</sup> Third, Gregory discusses the mediated nature of the drone gaze, which distances the viewer-participant from the danger of actual battle while facilitating an intimate view of its *sturm und drang*.<sup>16</sup> Decades of research have struggled to link mediated violence—i.e. as experienced on television or in gaming—with real world aggression, and it seems unlikely that nascent research into committing aggressive acts via mediated weapons such as drones will provide clear answers anytime soon.<sup>17</sup>

It is not clear how these various aspects around the mediated, militarized, aerial gaze of the drone fit together or how they may influence decision-making when it comes to killing others, even among those who are operating the drones. In a U.S. Air Force UAV unit involved in fighting the Islamic State from their base in Langley, Virginia, a reporter found that:

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<sup>13</sup> Ibid.

<sup>14</sup> Ben Anderson, “Facing the future enemy: US counter-insurgency doctrine and the pre-insurgent,” *Theory, Culture and Society* 28:7-8 (2011): 216-240, 222.

<sup>15</sup> Caren Kaplan, “Mobility and war: the cosmic view of US ‘air power’,” *Environment and Planning A* 38:2 (2006): 395-407.

<sup>16</sup> Derek Gregory, “Deadly embrace: war, distance and intimacy,” *The British Academy Lecture*, 10-11 Carlton House Terrace, London, March 14, 2012, available at: [www.britac.ac.uk/events/2012/Gregory-balec.cfm](http://www.britac.ac.uk/events/2012/Gregory-balec.cfm).

<sup>17</sup> For Vasilkas K Pozios, Praveen R. Kambam and H Eric Bender, “Does Media Violence Lead to the Real Thing?” *New York Times*, August 23, 2013, available at: [http://www.nytimes.com/2013/08/25/opinion/sunday/does-media-violence-lead-to-the-real-thing.html?\\_r=0](http://www.nytimes.com/2013/08/25/opinion/sunday/does-media-violence-lead-to-the-real-thing.html?_r=0).

“The airmen—the title applies to female pilots, too—can’t agree among themselves whether they’re at war. Some think they should qualify for a coveted combat patch—right now they don’t—while others say it’s harder to fight a war when one is not actually there. They say they must resist thinking they’re playing a video game.”<sup>18</sup>

To sum up, taken in isolation, drones seem to be ideal weapons for ensuring that military force is limited, highly discriminating and restrained. However, seen in a wider context, we note that calculations of civilian risk take place in the context of global power imbalances that render some civilians as somehow expendable or disposable; that for policymakers, these are weapons that enhance and expand opportunities for military action, thus making such action more likely; and that the mediated and distant nature of their deployments may lead to the creation and dehumanization of targets. Drones as a technology may skew the balance toward mounting attacks to achieve military objectives despite potential collateral costs.

## Israel and Drone Warfare

Israel is a world leader in the development, use and export of unmanned military systems with long experience with the technologies. Drone Wars UK reported that Israel has been developing drones for some forty years and has used armed drones in battle since 2004 (although Israel does not admit this).<sup>19</sup> The modern generation of drones is used mainly for intelligence, surveillance and reconnaissance (ISR) missions. Although these missions are not deadly, they are hardly benign: ISR itself assumes the existence of threat and leads to target acquisition. Furthermore, populations that fall under the gaze of drones feel threatened and harassed by their presence.<sup>20</sup>

Large numbers of drones were fully integrated into Operation Protective Edge, Israel’s 2014 military action in the Gaza Strip. Unmanned ground systems probed Hamas tunnels; artillery brigades used man-portable UAVs to monitor operations along the border, while overhead, large drones, including the debut of the one-ton Hermes 900, provided intelligence, designated targets and dropped bombs. By meshing drones with more traditional capabilities, the IDF was able to

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<sup>18</sup> Nancy A. Youssef, “Use of drones against Islamic State changes the meaning of warfare,” *McClatchy DC*, November 19, 2014, available at: [http://www.mcclatchydc.com/2014/11/19/247443\\_use-of-drones-against-islamic.html?rh=1#storylink=cpy](http://www.mcclatchydc.com/2014/11/19/247443_use-of-drones-against-islamic.html?rh=1#storylink=cpy).

<sup>19</sup> Dobbing, Mary and Chris Cole, *Israel and the Drone Wars: Examining Israel’s Production, Use and Proliferation of UAVs* (Oxford, London: Drone Wars UK Peace House, January 2014), 5.

<sup>20</sup> Sair, Atef Abu, *Sleepless in Gaza: Israeli Drone War on the Gaza Strip* (Palestine: Rosa Luxembourg Stiftung, 2014), 33-4.



leverage increasingly complex data sets to create a fuller picture of the operational environment and co-ordinate a mix of drones and manned aircraft, and in some cases, ground forces to deadly effect. For example, *Haaretz* reported on a tank brigade hit by mortar fire: the commander said, “A UAV sent the coordinates of the enemy mortar to the tank instantly, and the tank attacked.”<sup>21</sup> While this demonstrates the dynamic roles drones played during the conflict, much of their work was accomplished long before Operation Protective Edge began.

### *Extending War Through Time*

Shaul Shahar, a high ranking executive in the Israeli Aircraft Industry (IAI) and a former UAV squadron commander in the IDF’s Intelligence Directorate, said that, “UAVs have become an inseparable part of today’s battlefield, and are of the utmost importance.” Speaking shortly after Protective Edge concluded, he stressed that the presence of drones before and during the operation likely reduced collateral damage:

“UAVs make a decisive contribution, beginning at the stages prior to the actual battle, in minimizing the damage to the civilian population, through the real-time accompaniment of the entire course of the fighting, to the analysis of the results of the various moves made on the battlefield. Without the UAVs’ involvement and accompaniment, there is no doubt that the chances of collateral damage would have been much higher.”<sup>22</sup>

It is the extensive surveillance activities undertaken by drones prior to the conflict that contributed to the subsequent collateral damage. Israel’s drones had spent years acquiring targets in Gaza, and sometimes neutralizing them: some 825 people were killed in drone attacks between June 2006 and October 2011 according to the Palestinian Center for Human Rights.<sup>23</sup> Within this period, “dozens” were killed during Operation Cast Lead (December 27, 2008 to January 18, 2009), including perhaps eighty-seven civilians, numbers that attest to the scale of drone operations that were taking place over Gaza.<sup>24</sup>

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<sup>21</sup> Gili Cohen, “IDF’s intel tech advances put to the test in Gaza,” *Haaretz*, August 3 2014, available at: <http://www.haaretz.com/news/diplomacy-defense/israel-gaza-conflict-2014/1.608537>.

<sup>22</sup> JV staff, “Israel Aviation Industry: ‘UAVs are an Inseparable Part of the Fighting,’” *Jewish Voice*, September 17, 2014, available at: [http://jewishvoiceny.com/index.php?option=com\\_content&view=article&id=8587:israel-aviation-industry-quavs-are-an-inseparable-part-of-the-fighting&catid=99:defense&Itemid=282](http://jewishvoiceny.com/index.php?option=com_content&view=article&id=8587:israel-aviation-industry-quavs-are-an-inseparable-part-of-the-fighting&catid=99:defense&Itemid=282).

<sup>23</sup> Dobbins and Cole, *Israel and the Drone Wars*, 16.

<sup>24</sup> Human Rights Watch, *Precisely Wrong: Gaza Residents Killed by Israeli Drone-Launched Missiles* (New York, Human Rights Watch, 2009), 3.

Extensive and prolonged drone activity in advance of battle paid off in terms of providing potential targets. A senior commander of the Israel Air Force's (IAF) First UAV Squadron said on the IDF's blog that:

“We gather a lot of information which eventually gives us the ability to detect targets that need to be attacked. This is why the minute Operation Protective Edge began, the air force already had a large ‘bank’ of targets.”<sup>25</sup>

This “bank” of targets translated into a huge number of strikes when the shooting war finally began on July 8, 2014. The IDF says that it struck 4,762 terror targets between July 8 and August 5, including “1,678 rocket launching facilities, 977 command and control centers, 237 military administration facilities, 191 weapons storage and manufacturing facilities, 144 training and military compounds and 1,535 “additional terror sites.”<sup>26</sup> Each of the 4,762 targets would likely receive multiple hits from multiple platforms.<sup>27</sup> Furthermore, the way the Israel defined “threat” meant that much of Gaza was considered targetable: the *New York Times* reported on July 30 that fully 44 percent of Gaza had become a no-go zone.<sup>28</sup>

### *Target Practice: Operation Cast Lead*

Choosing targets—and choosing to neutralize them—are human decisions, and drones are ostensibly just tools that are used to carry them out. However, these particular tools offer capabilities that affect how decisions are made. There is little transparency around how Israel selects its targets and whether these choices should be considered legitimate under international humanitarian law, but what is plain is that Israel takes a great deal of care in choosing them. Something of the IDF's target acquisition and air war praxis in Protective Edge can be extrapolated by reviewing analyses of the earlier Operation Cast Lead that were undertaken by Anthony Cordesman and Human Rights Watch (HRW).<sup>29</sup>

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<sup>25</sup> Israeli Defense Forces, “Special Interview.”

<sup>26</sup> “Operation Protective Edge by the Numbers,” *Israeli Defense Forces blog*, August 5, 2014, available at: <http://www.idfblog.com/blog/2014/08/05/operation-protective-edge-numbers/>.

<sup>27</sup> Drones Wars UK estimates there were over 800 separate drone strikes during the operation; Chris Cole, “UK drone exports – a peek behind the curtain,” *Drone Wars UK*, November 19, 2014, available at: <http://dronewars.net/2014/11/19/uk-drone-exports-a-peek-behind-the-curtain/>.

<sup>28</sup> “Assessing the damage and destruction in Gaza,” *New York Times*, 30 July 2014.

<sup>29</sup> Anthony Cordesman, “The ‘Gaza War’: A Strategic Analysis,” *Centre for Strategic and International Studies*, February 2, 2009, available at: <http://csis.org/publication/gaza-war>; Human Rights Watch, *Precisely Wrong*; It should be noted that Cordesman has been criticized for his reliance on Israeli sources, and HRW for its reliance on Palestinian ones.

Cordesman found that in the years preceding Operation Cast Lead, Israel used imagery, communications and human intelligence to develop what he called a “remarkably accurate picture of Hamas targets in Gaza that it constantly updated on a near realtime basis” and noted that drones were used to contribute to the IAF’s targeting plan that “included some 603 major targets, and which treated *virtually every known Hamas location or residence as a potential area of operations and part of the Hamas leadership and military infrastructure.*” [Emphasis Added]<sup>30</sup> He quotes *Defense News* analyst Barbara Opall-Rome who reported that a target was defined as, “an object by which its nature, location, purpose, or use makes an effective contribution to military action and whose total or partial destruction in the circumstances ruling at the time gives a definite military advantage.” In short, the threat emanating from the region was broadly defined even as the presence of civilians was duly weighed. Cordesman writes that, “Every aspect of this plan was based on a detailed target analysis that explicitly evaluated the risk to civilians and the location of sensitive sites like schools, hospitals, mosques, churches, and other holy sites.”

The HRW investigation notes that it did not have explicit information about Israeli practices, but observed that Israeli drones had advanced visual capabilities and the ability to loiter over the battle theatre without risk for hours. In other words, there was time enough, and information enough, to ensure that “drone operators who exercised the proper degree of care should have been able to tell the difference between legitimate targets and civilians.”<sup>31</sup> HRW found that in the six cases it examined involving civilian deaths by drone, “the IDF repeatedly failed to verify that its targets constituted military objectives” and that, “Israel’s targeting choices led to the loss of many civilian lives.”<sup>32</sup> It called for investigations into specific attacks to assess whether international humanitarian law had been upheld.

The central point is that drones enabled the IDF to undertake detailed, extensive, and discriminating targeting of Gaza, before and during the actual fighting. The killing of civilians may be down to differing interpretations of military necessity, or in some cases, in how combatants and non-combatants are distinguished from one another.<sup>33</sup> But it is the drone gaze that enables these targets to be ‘called into

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<sup>30</sup> Cordesman, “Gaza War,” 16-17.

<sup>31</sup> Human Rights Watch, *Precisely Wrong*, 4.

<sup>32</sup> *Ibid*, 3.

<sup>33</sup> Israel has been actively working to have its views on non-combatant protections accepted as part of customary international law; Jeff Halper, “Globalizing Gaza,” *Counterpunch*, August 18, 2014, available at: <http://www.counterpunch.org/2014/08/18/globalizing-gaza/>; The US has infamously defined combatants in some areas as “all military-age males in a strike zone...unless there is explicit intelligence posthumously proving them innocent; Jo Becker and Scott Shane, “Secret ‘Kill List’ Proves a Test of Obama’s Principles and Will,” *New York Times*, May 29,

being'. The same disruptive dynamics of 'big data' that see the delivery of vast amounts of detailed information delivered at warp speed may well inhere in military target acquisition. The implication is that finding more targets may lead to more attacks.

### *Fighting in Gaza*

Israeli military planners face two large problems in Gaza. First, in a highly urbanized environment, collateral damage is likely no matter how surgical a strike is. Second, citing military necessity, Hamas operates in civilian areas in order to deter Israeli attacks. While both unethical and illegal, this is a tactic characteristic of weaker sides in highly asymmetric conflicts, and the fact of it does not exempt the other side from adhering to the laws of war. Furthermore, both Israel and Hamas are aware of how important propaganda is to their cause and factor it into their military planning. Civilian casualties draw global attention and international pressure, and the prospect of prosecution for war crimes may lead states to use force with restraint. This bleeding of politics into operations places limits on military commanders.

Israel says that it fights according to international law, takes great efforts to avoid civilian casualties, and cites its use of drones as an important element in meeting these goals. In March 2014, IDF drone operator Captain "N" told CBN News:

"Probably the most important thing that the UAVs help during combat is to distinguish terrorists from civilians because most of the enemy techniques here in the region is to operate from civilian areas. We really don't want to hurt civilians during combat."<sup>34</sup>

He suggested that this enhanced intelligence would inhibit the IDF from undertaking some attacks: "We can't really hit and destroy the targets and the people that we want to destroy because we consider the population and the civilians who are around those kinds of terrorists." A senior commander of First UAV Squadron noted that the ability to extend intelligence collection across time was vital to target acquisition:

"Every few months, it is essential to check that the target is still relevant. If you find a weapons storage facility today, tomorrow they could take all of the weapons out of the building and build a kindergarten. If I don't know

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2012, available at: [http://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?pagewanted=1&\\_r=2&](http://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?pagewanted=1&_r=2&).

<sup>34</sup> Chris Mitchell and Julie Stahl, "Israeli Military Using Drones to Save Lives," *CBN News*, March 23, 2014, available at: <http://www.cbn.com/cbnnews/insideisrael/2014/March/IDF-Uses-Drones-to-Save-Lives/>.

about that change, I might accidentally target it. That's why we don't only find new targets; we also keep track of the existing ones."<sup>35</sup>

Amid the controversy surrounding the devastation wrought during Operation Protective Edge, Israel mounted a public relations effort to showcase the specific actions it took to minimize damage.<sup>36</sup> Along with dropping leaflets and making phone calls to warn civilians of impending attacks, the IDF used 'roof-knocking', the practice of sending in small 'non-lethal' missiles to warn civilians to flee in advance of a larger strike. This is widely condemned because, unlike leaflets or phone calls, the warning itself is a form of attack, and overall its efficacy is questionable. In some cases, whether through choice or compulsion, people move up onto the rooftops to deter impending attacks, and in response, sometimes attacks are modified, lessened, or aborted. A senior IDF UAV commander said, "As a policy, the 'First UAV Squadron' orders the abortion of airstrikes if they put civilians at risk."<sup>37</sup> However, a 'military necessity' would override the general policy.

## The Israeli Way of War

The thousands of dead and injured and the devastation of homes and infrastructure have fuelled accusations that the Israeli actions during Protective Edge were indiscriminate. As it was after 2009's Operation Cast Lead, Israel is being accused of war crimes and is itself investigating some of the more egregious incidents in an effort to stave off action by the International Criminal Court. It maintains its conduct was within acceptable limits. The Israeli Foreign Ministry stated:

"Israel acknowledges that despite the precautions taken, military operations inevitably lead to a loss of civilian life and property. *Yet civilian deaths and damage to property, no matter how regrettable and unfortunate, do not necessarily mean that violations of international law as such have occurred.*" [Original Emphasis]<sup>38</sup>

As Israeli targeting of Gaza appears to have been highly discriminating, a more serious problem may lie in how its view of legitimate attacks differs from the global "norm." Israel is a state that faces genuine threats from all sides in an unstable region. In on-going multi-stranded conflicts, the Palestinian populations

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<sup>35</sup> Israeli Defense Forces, "Special Interview."

<sup>36</sup> Israeli Defense Forces, "The IDF's Efforts to Minimize Civilian Casualties in Gaza," *Israeli Defense Forces blog*, available at: <http://www.idfblog.com/operationgaza2014/#Casualties>, contains videos, tweets, article and infographics that chronicle these efforts.

<sup>37</sup> Israeli Defense Forces, "Special Interview."

<sup>38</sup> Israel Ministry of Foreign Affairs, "Behind the headlines."

not only try to assert their own agendas, but also become proxies for larger interests. Israel's inability to resolve long-standing territorial issues or to reach peaceful accommodation with its rivals means it exists in a state of chronic insecurity. Since its withdrawal from Gaza in 2005, it has skirmished with insurgent group Hamas constantly, and on occasion those skirmishes have flared into major but inconclusive operations such as Operation Cast Lead (2008-9), Pillar of Defense (2012), and now Protective Edge (2014). Israel maintains that its actions are necessary to maintaining its national security.

### *The Dahiya Doctrine*

The scale of death and destruction in Gaza during Protective Edge has been described as “collective punishment” and/or as an old-school military action designed to break a population's morale through heavy bombardment. There is speculation that Israel followed the Dahiya Doctrine, a controversial strategy that was revealed in a U.S. State Department cable released by wikileaks.<sup>39</sup> The cable described an interview given by a senior Israeli military commander, General Gadi Eisenkot in 2008:

“Eisenkot labeled any Israeli response to resumed conflict the ‘Dahiya doctrine’ in reference to the leveled Dahiya quarter in Beirut during the Second Lebanon War in 2006. He said Israel will use *disproportionate* force upon any village that fires upon Israel, ‘causing great damage and destruction’. Eisenkot made very clear: this is not a recommendation, but an already approved plan—from the Israeli perspective, these are “not civilian villages, they are military bases.” [Emphasis Added]<sup>40</sup>

The Dahiya doctrine thus espoused is intended to deter through the threat of heavy punishment. What may be significant is what Eisenkot clearly describes as “disproportionate” was parsed by the State Department official who penned the cable as “indiscriminate”; the writer characterized the Dahiya doctrine as a “policy to respond with *indiscriminate* force against Lebanon should hostilities resume.” This blurs an important difference between the two just war conditions of discrimination and proportionality. Eisenkot's remarks are intended to deter, but also show that Israel is willing to use force in specific ways—including disproportionate force—in order to achieve its objectives.

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<sup>39</sup> Eamonn McCann, “Israel's assault on Gaza is an expression of the Dahiya Doctrine,” *Irish Times*, August 21 2014, available at: <http://www.irishtimes.com/news/world/middle-east/israel-s-assault-on-gaza-is-an-expression-of-the-dahiya-doctrine-1.1902934?page=1>.

<sup>40</sup> “IDF Regional commanders speak out in press interviews,” October 15, 2008, available at: [https://wikileaks.org/plusd/cables/o8TELAVIV2329\\_a.html](https://wikileaks.org/plusd/cables/o8TELAVIV2329_a.html).

Israel's interpretation of what is militarily necessary is met with sympathy in many quarters. Concerning Operation Protective Edge, CJCS General Dempsey noted that, "The IDF is not interested in creating civilian casualties. They're interested in stopping the shooting of rockets and missiles out of the Gaza Strip and into Israel."<sup>41</sup>

## Drones as Future Weapons

Although Israel is ostensibly engaged in counter-terrorism operations against Hamas, its strategy bears more than passing resemblance to attrition warfare. Freedman notes that the "key characteristic" of this deeply unfashionable strategy has historically been to wear down the enemy:

"Which meant the process was likely to be protracted, gradual, and piecemeal. While it could end with a decisive battle, it could also lead to a negotiation when both sides had decided that they had had enough. The danger was that attrition would turn into a contest of endurance, and it was hard to know in advance when the enemy would be worn down."<sup>42</sup>

With no easy military or political solutions on offer, Israel is attempting to degrade its enemies' capabilities in order to maintain its own security. Drones are well suited to this kind of long-term strategy even where the end game is not annihilation, but co-existence.

The enemy, too, adapts. Operation Protective Edge revealed the extent to which Hamas had already moved much of its activity underground to defeat Israeli ISR and aerial strike. Furthermore, while its operational capabilities are weak compared to Israel's, it has continued to regroup, retrain and improve its ability to harass and undermine Israeli security and in doing so has become a formidable enemy.<sup>43</sup> During the conflict, Hamas flew its own surveillance drones, while its tactics, tunnels networks, and deployment of booby traps and improvised explosive devices all speak to its increasing sophistication.

The targeting process for Operation Protective Edge was likely consistent with previous Israeli practice, but the use of drones to extend security in time and space increased the number of targets identified. This, when combined with a

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<sup>41</sup> "Dempsey: Israel went to 'extraordinary length.'"

<sup>42</sup> Freedman, Lawrence, *Strategy: A History* (Oxford: Oxford University Press, 2013), 209.

<sup>43</sup> Since 2012's Pillar of Defense, Hamas doubled its rocket arsenal, increased their range and accuracy, and improved its ability to locally manufacture them. Some of these improvements came to light during Protective Edge; Elhanan Miller, "From tunnels to R-160s, a primer on Hamas and its deadly capabilities," *Times of Israel*, July 31, 2014, available at: <http://www.timesofisrael.com/from-tunnels-to-r-160s-a-primer-on-hamas-and-its-deadly-capabilities/>.

willingness to inflict collateral damage as a necessary part of fighting Hamas, can account for the high level of civilian casualties. What may be unique is the highly discriminating nature of the fighting: a far cry from the carpet bombing associated with wars of attrition, Israel carried out thousands of very small attacks to achieve the same effect. This models a highly networked approach to war where decision-making is dispersed and highly fragmented, but the effects, in aggregate, are devastating.

## Conclusion

In the future—perhaps by 2030—advanced militaries plan to have drone and other exotic technologies that go beyond mere persistence to achieve permanence, giving them operational abilities, from ISR through target acquisition to kinetic operations that will be available always and everywhere.<sup>44</sup> In planning for an era of long, small, inconclusive wars against inchoate enemies and constantly evolving threats, the drone's future seems assured.

In theory, and especially in the rhetoric of the civilian and military commanders who advocate their use, drones hold out the prospect that this will be a 'more humanitarian' way of warfare. The lesson emerging from Gaza is that in practice the opposite effect is achieved. Not only does their persistent presence traumatize subject populations during peacetime, but when the shooting starts, drones encourage planners to mount large numbers of attacks on the grounds that they are likely to be more accurate and therefore less damaging. We should not automatically assume that weapons of mass destruction are large and few—they can be small and many. Stalin supposedly remarked that “quantity has a quality all its own,” an observation that should be borne in mind by militaries relying on drones in the hope of fighting more just wars.

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<sup>44</sup> Rogers and Hill, *Unmanned*, 57-8.